ELSEVIER

Applied Surface Science 249 (2005) v–vii

applied surface science

www.elsevier.com/locate/apsusc

Contents

Short communications

A novel emulsion route to sub-micrometer polyaniline/nano-ZnO composite fibers
Y. He 1

Replacement of adsorbed alkanethiolate on Au with carboxyl-terminated thiol in solution: effect of alkyl chain length
Y.-K. Kim, J.P. Koo and J.S. Ha 7

Enhanced peak separation in XPS with external biasing
G. Ertas, U. Korcan Demirok and S. Suzer 12

Interfacial conditions and electrical properties of the $SrBi_2Ta_2O_9/ZrO_2/Si$ (MFIS) structure according to the heat treatment of the ZrO_2 buffer layer
C.-H. Park, J.-H. Kim, M.-C. Kim, Y.-G. Son and M.-S. Won 16

Influence of the morphology of ferroelectric $SrBi_2Ta_2O_9$ thin films deposited by metal organic decomposition on its electrical characteristics
M. Moert, G. Schindler, T. Mikolajick, N. Nagel, W. Hartner, C. Dehm, H. Kohlstedt and R. Waser 23

Role of Pb for Ag growth on H-passivated Si(100) surfaces
S. Mathew, B. Satpati, B. Joseph and B.N. Dev 31

Imaging low-dimensional magnetism with slow electrons
R. Zdyb, A. Pavlovska, A. Locatelli, S. Heun, S. Cherifi, R. Belkhou and E. Bauer 38

Excimer laser modification of thin AlN films
D.G. Georgiev, L.W. Rosenberger, Y.V. Danylyuk, R.J. Baird, G. Newaz, G. Shreve and G. Auner 45

Evaluation of the diffusion coefficient of nitrogen in Fe_4N_{1-x} nitride layers during microwave post-discharge nitriding
I. Campos, R. Torres, O. Bautista, G. Ramírez and L. Zuñiga 54

Transparent oxygen impermeable AlO_x thin films on polycarbonate deposited by reactive ion beam sputtering
J.-W. Seong, S.-M. Kim, D. Choi and K.H. Yoon 60

Dopant effect on in situ doped metal-induced lateral crystallization of amorphous silicon films
J.-D. Hwang, J.-Y. Chang and C.-Y. Wu 65

Hydrothermal growth of perpendicularly oriented ZnO nanorod array film and its photoelectrochemical properties
M. Guo, P. Diao and S. Cai 71

Hydrophilic modification of poly(ether sulfone) ultrafiltration membrane surface by self-assembly of TiO_2 nanoparticles
M.-L. Luo, J.-Q. Zhao, W. Tang and C.-S. Pu 76

Simulation of growth process of thin film on non-planar substrate
H.J. Qi, J.D. Shao, D.P. Zhang, K. Yi and Z.X. Fan 85

A comparative study of the electrical characteristics of metal-semiconductor-metal (MSM) photodiodes based on GaN grown on silicon
Y.C. Lee, Z. Hassan, F.K. Yam, M.J. Abdullah, K. Ibrahim, M. Barmawi, Sugianto, M. Budiman and P. Arifin 91

Modeling of Fe growth on Mo(1 1 0)
A. Canzián, H.O. Mosca and G. Bozzolo 97

Electron induced deposition and in situ etching of CrO_xCl_y films
S. Wang, Y.-M. Sun and J.M. White 110

Water adsorption on plasma sprayed transition metal oxides
M. Harju, T. Mäntylä, K. Vähä-Heikkilä and V.-P. Lehto 115

Evolution of near-surface concentration profiles of Cr during annealing of Fe–15Cr polycrystalline alloy
E. Park, B. Hüning and M. Spiegel 127

Nucleation and growth modes of ZnO deposited on 6H–SiC substrates
A.B.M.A. Ashrafi, Y. Segawa, K. Shin, J. Yoo and T. Yao 139

Control of carbon nanotube growth using cobalt nanoparticles as catalyst
Y. Huh, M.L.H. Green, Y.H. Kim, J.Y. Lee and C.J. Lee 145

Thick and macroporous anodic alumina membranes for self-lubricating surface composites
H. Wang and H. Wang 151

High-reflectance 193 nm Al_2O_3/MgF_2 mirrors
S. Shuzhen, S. Jianda, L. Chunyan, Y. Kui, F. Zhengxiu and C. Lei 157

In situ and ex situ characterisation of the passive film on a ferritic stainless steel in molten sodium hydroxide
J. Kolchakov, T. Tzvetkoff and M. Bojinov 162

New telechelic compounds as corrosion inhibitors for steel in 1 M HCl
M. Elayyachy, B. Hammouti and A. El Idrissi 176

A study on low cost-high conducting fluorine and antimony-doped tin oxide thin films
E. Elangovan and K. Ramamurthi 183

The origin of faceting of ultraflat gold films epitaxially grown on mica
B. Lüssem, S. Karthäuser, H. Haselier and R. Waser 197

Effects of Al content on properties of Al–N codoped ZnO films
Y.-J. Zeng, Z.-Z. Ye, J.-G. Lu, L.-P. Zhu, D.-Y. Li, B.-H. Zhao and J.-Y. Huang 203

Study on cord/rubber interface at elevated temperatures by H-pull test method
M. Jamshidi, F. Afshar, N. Mohammadi and S. Pourmahdian 208

Effects of dry etching processes on optical properties of ZnTe surface layers in ultraviolet region
S. Wu, Z.Q. Ren, W.Z. Shen, H. Ogawa and Q.X. Guo 216

Sputter cleaning and annealing of zinc-blende MnTe surface—XPS study
R.J. Iwanowski, M.H. Heinonen and E. Janik 222

Evolution of oxidation states in vanadium-based catalysts under conventional XPS conditions
Y. Suchorski, L. Rihko-Struckmann, F. Klose, Y. Ye, M. Alandjiyska, K. Sundmacher and H. Weiss 231

Thermionic contrast between the mean work functions effective for thermal positive-ionic and electronic emissions from polycrystalline tungsten surfaces heated in vacuum: comparison between theory and experiment
H. Kawano 238

Diamond-like carbon coatings on microdrill using an ECR-CVD system
H.Y. Ueng and C.T. Guo 246

Friction behaviors of hydrogenated diamond-like carbon film in different environment sliding against steel ball
H. Li, T. Xu, C. Wang, J. Chen, H. Zhou and H. Liu 257

Fibrillar polyaniline/diatomite composite synthesized by one-step in situ polymerization method
X. Li, X. Li and G. Wang 266

Surface properties of treated ITO anodes for organic light-emitting devices
Z.Z. You and J.Y. Dong 271

Ion-, photoelectron- and laser-assisted analytical investigation of nano-structured mixed HfO_2–SiO_2 and ZrO_2–SiO_2 thin films
L. Armelao, D. Bleiner, V. Di Noto, S. Gross, C. Sada, U. Schubert, E. Tondello, H. Vonmont and A. Zattin 277

XPS study of the ultrathin a-C:H films deposited onto ion beam nitrided AISI 316 steel
S. Meskinis, M. Andrulevicius, V. Kopustinskas and S. Tamulevicius 295

Surface properties and conductivity of bis(2-ethylhexyl) sulfosuccinate-containing polypyrrole
K. Boukerma, M. Omastová, P. Fedorko and M.M. Chehimi 303

Conducting atomic force microscopy for nanoscale electron emissions from various diamond-like carbon films
D. Liu and G. Benstetter 315

Pulse width and energy influence on laser micromachining of metals in a range of 100 fs to 5 ps
R. Le Harzic, D. Breitling, M. Weikert, S. Sommer, C. Föhl, S. Valette, C. Donnet, E. Audouard and F. Dausinger 322

Interaction of anti-adhesive silicone films with UV embossing resin
Y.H. Yan, M.B. Chan-Park, W.C. Ching and C.Y. Yue 332

Photoemission study of chemisorption and Fermi-level pinning at K/GaAs(1 0 0) interface with synchrotron radiation
M.H. Sun, T.X. Zhao, C.Y. Jia, P.S. Xu, E.D. Lu, C.C. Hsu and H. Ji 340

Preparation of silver nanopatterns on DNA templates
S. Dai, X. Zhang, T. Li, Z. Du and H. Dang 346

Impact of laser scribing for efficient device separation of LED components
E.K. Illy, M. Knowles, E. Gu and M.D. Dawson 354

Interface study of transition metal (Fe, Zr) on 4H–SiC(0 0 0 1)Si face: photoemission electron microscopy and soft X-ray fluorescence spectroscopy
M. Hirai, C. Kamezawa, S. Azatyan, Z. An, T. Shinagawa, T. Fujisawa, M. Kusaka and M. Iwami 362

Effect of substrate temperature on electrochromic properties of spray-deposited Ir-oxide thin films
P.S. Patil, R.K. Kawar and S.B. Sadale 367

Inhibitive action of bipyrazolic type organic compounds towards corrosion of pure iron in acidic media
A. Chetouani, B. Hammouti, T. Benhadda and M. Daoudi 375

Effect of Ar^+ ion implantation on the nano-mechanical properties and microstructure of single crystal silicon
R. Sun, T. Xu and Q.-j. Xue 386

ToF-SIMS imaging: a valuable chemical microscopy technique for paper and paper coatings
P. Fardim and B. Holmbom 393

The inhibition effect of some amino acids towards the corrosion of aluminum in 1 M HCl + 1 M H_2SO_4 solution
H. Ashassi-Sorkhabi, Z. Ghasemi and D. Seifzadeh 408

Growth of $SrTiO_3$ films on Si(0 0 1)–Sr(2 × 1) surfaces
Md.N.K. Bhuiyan, H. Kimura, T. Tambo and C. Tatsuyama 419

Modification of PS films by combined treatment of ozone aeration and UV irradiation in aqueous ammonia solution for the introduction of amine and amide groups on their surface
T.N. Murakami, Y. Fukushima, Y. Hirano, Y. Tokuoka, M. Takahashi and N. Kawashima 425

Erratum

Erratum to "Time resolved schlieren study of sub-picosecond and nanosecond laser transfer of biomaterials" [Applied Surface Science 247 (2005) 584–589]
I. Zergioti, A. Karaiskou, D.G. Papazoglou, C. Fotakis, M. Kapsetaki and D. Kafetzopoulos 433

Author Index I

Subject Index V